

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P3008/PCT		FOR FURTHER ACTION	See Form PCT/IPEA/416																								
International application No. PCT/EP2004/006000	International filing date (day/month/year) 03.06.2004	Priority date (day/month/year) 03.06.2003																									
International Patent Classification (IPC) or national classification and IPC																											
Applicant GAUSS, Ralph																											
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>3</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <table border="0"><tr><td><input checked="" type="checkbox"/></td><td>Box No. I</td><td>Basis of the report</td></tr><tr><td><input type="checkbox"/></td><td>Box No. II</td><td>Priority</td></tr><tr><td><input type="checkbox"/></td><td>Box No. III</td><td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td></tr><tr><td><input type="checkbox"/></td><td>Box No. IV</td><td>Lack of unity of invention</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. V</td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VI</td><td>Certain documents cited</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. VII</td><td>Certain defects in the international application</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. VIII</td><td>Certain observations on the international application</td></tr></table>				<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand		Date of completion of this report																									
Name and mailing address of the IPEA/EP		Authorized officer																									
Facsimile No.		Telephone No.																									

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/006000

Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-10 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-14 _____ received by this Authority on 05.01.2005 with letter
- nos.* _____ received by this Authority on of 03.01.2005
- ☒ the drawings:
- sheets 1/3-3/3 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-8, 10-13	YES
	Claims	9, 14	NO
Inventive step (IS)	Claims	1-8	YES
	Claims	9-14	NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1. Reference is made to the following document:

D1: US-A-6 045 740

2. The following comments should be read in conjunction with the remarks in Box VIII of this report:

- 2.1 Document D1 (see column 4, lines 1 to 52, and Figure 2) discloses a process for producing an injection moulding from plastic, using an injection unit with a gate in the nozzle housing. The gate is connected to a runner which leads to a chamber with an outer needle and an inner needle for closing off the gate. First the outer needle is drawn back to create the chamber, and a metered quantity of plastic enters the chamber from the runner while the inner needle keeps the gate closed. Finally, after the metering stage the gate is opened by raising the inner needle, and the metered quantity of plastic is forced through the gate into a cavity by a lifting movement of the outer needle. When the lifting movement of the outer needle is complete, or at the end of a predetermined holding time, the inner needle closes the gate.

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

The subject matter of claim 1 differs from the teaching of D1 in that the plastic is drawn out of the runner when it is metered into the chamber, and in that at the end of the injection stage or release of the holding pressure the volume of plastic inside the chamber is close to zero.

The subject matter of claim 1 is therefore novel, and claim 1 meets the requirement of PCT Article 33(2).

The problem addressed by claim 1 can be seen as that of how to accelerate the filling process (see page 10, first paragraph).

The features of the solution according to claim 1 are not known from the prior art, and there is nothing in the prior art to suggest to a skilled person that these features can be used to arrive at the claimed solution. The subject matter of claim 1 is therefore not obvious to a skilled person, and hence claim 1 also meets the requirement of PCT Article 33(3).

- 2.2 Document D1 (see column 4, lines 1 to 52, and Figure 2) also discloses a device for producing an injection moulding from plastic. The device has a nozzle housing containing a gate connected to a runner, the gate in the nozzle housing being provided with an inner needle and an outer needle for metering the melt, forcing it in and optionally keeping it under pressure. The runner leads to the bottom of a chamber in which the outer needle is also fitted.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

The subject matter of claim 9 therefore lacks novelty, and claim 9 fails to meet the requirement of PCT Article 33(2).

3.1 The combination of features specified in claim 14 is also known from D1 (see column 4, lines 1 to 52). Claims 2 to 8 are dependent on claim 1 and therefore also meet the requirements of PCT Article 33(2) and 33(3).

3.2 Because the technical features of claim 9 are already known it is not possible to determine at this time whether there is still a technical relationship (EPC Rule 30) between the various claims that are directly dependent on claim 9. It therefore does not seem possible at this time to acknowledge an inventive step or select essential features that would support an inventive step.

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Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

1. Contrary to the requirements of PCT Rule 5.1(a)(ii), the description does not cite document D1 and also fails to give an account of the relevant prior art disclosed therein.
2. Independent claim 1 has not been drafted in the two-part form defined by PCT Rule 6.3(b), and yet the two-part form would seem to be appropriate in this case.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. The application fails to meet the requirements of PCT Article 6 for the following reasons:
 - 1.1 A comparison of the process features of process claim 1 and the device features of device claim 9 shows that either the process claim or the device claim lacks "similar or corresponding features". The claims are therefore inconsistent with regard to their scope.
 - 1.2 In claim 9 the phrase "for metering the melt, forcing it in and optionally keeping it under pressure" refers to a process for using the device rather than to the definition of the device in terms of its technical features. As a result the intended limitations are not clear from the claim (PCT Article 6).
 - 1.3 Claim 7 is a device claim which is dependent on a process claim. The same applies to claim 12, which cannot be dependent on claim 8.